industries. The use of EPDM and HDPE/EPDM blend membranes for the separation of organic liquid mixtures using pervaporation technique is another area of interest.

Vapour permeation experiments can be used as a convenient tool for elucidating the interactions between the polymer phases. The study of the influence of filler geometry on transport process is a very interesting extension of this research programme. Penetrant transport can be successfully utilised for studying the reinforcement of different fillers in polymer matrix. Effect of incorporation of nano fillers on the polymer blend matrix can also be undertaken.

The knowledge gained from the gas permeation studies can be utilized for developing new membrane materials for separation and concentration of hydrogen, enrichment of oxygen content of air for medical applications and natural gas treatment for CO_2 recovery.

Another inspiring prospect is the chemical modification of EPDM and HDPE/EPDM blend matrices for improving their separation efficiency. These membranes can also be used for the separation of azeotropic mixtures, which cannot be separated by chemical methods.

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LIST OF PUBLICATIONS

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8. Aromatic solvent transport through filled high density polyethylene/ ethylene propylene diene terpolymer rubber blends, Anil Kumar P.V., K.T.Varughese and SabuThomas (Communicated to Journal of Applied Polymer Science).

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